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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,618	09/08/2000	Hiroki Ogata	SCEI 3.0-030	3345

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EXAMINER
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ART UNIT	PAPER NUMBER
2675	9

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/658,618	Applicant(s) OGATA ET AL.	
	Examiner Alecia D Nelson	Art Unit 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 4, 6-9, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. (U.S. Patent No. 5,485,171).

With reference to the **claims 1, 4, and 16-17** Cooper et al. teaches a control apparatus (1) comprising a controller (3) which can be pressed and operated (see column 5, lines 50-53), a detecting device (transducer, 15) for outputting an analog signal corresponding to the pressing operation of the controller, an A/D converting unit for converting the segmented analog signal into a digital signal in accordance with the

one of the plurality of levels (see column 9, lines 43-51), and a segmenting range setting unit for setting a range of output levels of the analog signal wherein the plurality of levels into which the analog signal segmented within the range which is set by the segmenting-range setting unit (see column 9, line 61-column 10, line 5). With further reference to **claim 6**, there is taught a comparator for comparing the range of the voltage level with the limit value (see column 9, line 60-column 10, line column 10, line 50). With reference to **claims 7-9**, Cooper teaches that switch caps (19) are made of a plastic or other material and so arranged that deformation of the cap or a portion thereof must occur in order to operate one of the switches (see column 6, lines 36-50).

Cooper et al fails to specifically teach the usage of a level segmenting unit or a segmenting-range setting unit, however does teach a variance in voltage as related to applied pressure and a set voltage range between 0 V and a maximum voltage determined by circuit parameters. With further reference to **claims 3 and 14**, Cooper fails to specifically teach that the segmenting-range setting unit comprises a storing unit for the plurality of levels and that the entertainment device also has a storing unit for storing the plurality of levels. Cooper et al. teaches that the disclosed invention could be applied to sound equipment, personal computers, or video recording and playback equipment (see column 1, lines 19-24), wherein a microprocessor whose software is stored in a ROM, controls the functions of the receiver including receiving and verifying data streams from the transmitter, and also decoding position and stats information. The information is translated and the signals are sent to the host computer. It is also taught that the transmitter comprises a microcontroller (22)

containing a ROM for storing functions of the transmitter, and well as teaching that the voltage levels ranging from 0 to a maximum voltage as determined by circuit parameters, which would make it obvious to use a storing unit for storing the predetermined voltages provide by the pressure sensitive resistor used in an entertainment system.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention for a device similar to that which is taught by Cooper et al. to include a level segmenting unit and a segmenting-range setting unit for providing a set range of voltage levels which relate to applied pressure to a detecting device in order to provide the corresponding signals to a processor for controlling a computer system. This thereby providing intermediate levels between the maximum and minimum voltage to control the displayed object for better interaction between the user and the system.

Claims 2, 5, 10-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. in view of Armstrong (U.S. Patent No. 6,208,271).

With reference to **claims 2 and 10**, Cooper et al. teaches all that is required as explained above with reference to **claim 1**, however fails to teach that the switch provides a digital signal with a plurality of bits or a single bit which is connected to the A/D converter. With reference to **claims 11-13** teaches that switch caps (19) are made of a plastic or other material and so arranged that deformation of the cap or a portion thereof must occur in order to operate one of the switches (see column 6, lines 36-50).

Armstrong teaches that each state, whether two (On or OFF) or three (Off, first On state and second On state) (see column 10, lines 57), of the dome cap sensor can be associated with an individual bit or digital assignment (see column 15, lines 63-65). Armstrong also teaches that the switch (keypad, 62) is connected to circuitry (70), which includes additional circuitry (72) being an A/D converter (see Fig. 20).

With reference to **claims 5 and 15**, Cooper teaches all that is required as explained above with reference to **claim 1**, however fails to teach that the segmenting range setting unit is a volume device that is inserted in the power line of the detecting device for determining the range of output levels.

Armstrong teaches the usage of a meter (26) including an electromagnetic coil engaged to a moveable indicating needle adjacent a printed scale or range gauge and capable of showing varying conductivity across the sensor (10). Armstrong also teaches that with sufficient pressure, and varying pressure well within a range readily applied by a human finger, the sensor (10) will be moved to first second states with increasing applied pressure, and the different states in this example, because it's an analog circuit, will be indicated by the needle of the meter (26) being positioned left, right or at various states in between on the scale (see column 13, lines 20-68).

Therefore it would have been obvious to allow the switch to provide digital signals and to provide a volume device as taught by Armstrong in a device similar to that which is taught by Cooper et al. in order to provide a pressure-sensitive analog sensor which can supply the user with a tactile feedback on activation, as well as de-activation, of the sensor. Providing the user with the tactile feedback will thereby

reducing the amount of confusion on the part of the user as to when the sensor is actuate and de-actuated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D Nelson whose telephone number is (703)305-0143. The examiner can normally be reached on Monday-Friday 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras can be reached on (703)305-9720. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9700.

adn/ADN
December 16, 2002

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600